

### Overview

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special oneway valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.



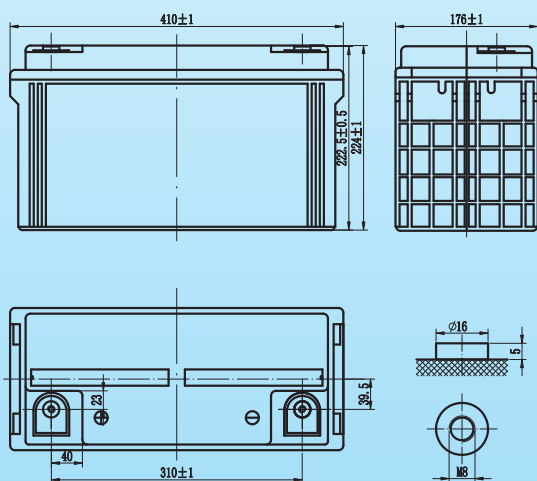
### General Features

- Positive and negative plates in lead-calcium tin alloy;
- Superior energy density;
- Operates at a low internal pressure;
- Gas Recombination;
- Usable in any orientation;
- A recognized component of UL;
- Very high power output;
- Application specific designs;
- A couple Range from 13W to 890W per cell for 10'@1.60Vpc;
- Six months shelf life at 20°C;
- Design life 10 years.

### Dimensions and Weight

Length(mm / inch)	410 / 16.1
Width(mm / inch)	176 / 6.93
Height(mm / inch)	224 / 8.82
Total Height(mm / inch)	224 / 8.82
Approx. Weight(Kg / lbs)	37.7 / 83.1

\* Weight deviation: ± 5%



### Battery Specification

Performance Characteristics	
Nominal Voltage	12V
Number of cell	6
Design Life	10 years
Nominal Capacity 77°F(25°C)	
10 min wattage @1.6V	560W/cell
20hour rate (6.57A, 10.5V)	131Ah
10hour rate (12.0A, 10.8V)	120Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	≤4.0 mOhms
Self-Discharge	
3% of capacity declined per month at 20°C(average)	
Operating Temperature Range	
Discharge	-20~60°C
Charge	-10~60°C
Storage	-20~60°C
Max. Discharge Current 77°F(25°C)	950A(5s)
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	2.40-2.45VPC
Maximum charging current	36.0A
Temperature compensation	-30mV/°C
Standby use	2.20-2.30VPC
Temperature compensation	-20mV/°C

### Discharge Constant Current (Amperes at 77°F25°C)

End Point						
Volts/Cell	10min	15min	20min	30min	45min	60min
1.60V	314	260	212	165	117	91.6
1.65V	297	246	201	157	111	87.4
1.70V	280	233	190	148	105	83.2
1.75V	263	219	179	140	99.5	79.0
1.80V	253	211	174	136	97.1	77.2

### Discharge Constant Power (Watts at 77°F25°C)

End Point						
Volts/Cell	10min	15min	20min	30min	45min	60min
1.60V	560	460	376	292	212	169
1.65V	539	444	363	283	206	164
1.70V	518	428	351	273	200	160
1.75V	497	412	338	264	193	155
1.80V	476	396	325	254	187	150

(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.All data shall be changed without notice, Vision reserves the right to explain and update the information contained hereinto.



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# HF12-560W-X

12V 120Ah

